



Supported Packages and System Requirements

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Memory Requirements

The following table displays the memory recommendations for the Cisco cBR-8 routers with Cisco IOS XE Cupertino 17.9.1 feature sets.

Table 1: Memory Recommendations for the Cisco cBR-8 Routers with Cisco IOS XE Cupertino 17.9.1y1

Feature Set	Cisco cBR-8 Route Processor	Software Image	Recommended Flash Memory	Recommended DRAM Memory	Runs From
CISCO IOS-XE universalk9	Cisco cBR-8 (CBR) Processor	cbrsup-universalk9.17.9.1y1.SPA.bin	8G	48G	Bootflash:
CISCO IOS-XE CLC K9	Cisco cBR-8 (CYLONS) Processor	cbrsup-universalk9.17.9.1y1.SPA.bin	8G	16G	Supervisor
CISCO IOS-XE Kobol-R	Cisco cBR-8 (Kobol-R) Processor	cbrsup-universalk9.17.9.1y1.SPA.bin	8G	64G	Supervisor

Table 2: Memory Recommendations for the Cisco cBR-8 Routers with Cisco IOS XE Cupertino 17.9.1y

Feature Set	Cisco cBR-8 Route Processor	Software Image	Recommended Flash Memory	Recommended DRAM Memory	Runs From
CISCO IOS-XE universalk9	Cisco cBR-8 (CBR) Processor	cbrsup-universalk9.17.9.1y.SPA.bin	8G	48G	Bootflash:
CISCO IOS-XE CLC K9	Cisco cBR-8 (CYLONS) Processor	cbrsup-universalk9.17.9.1y.SPA.bin	8G	16G	Supervisor
CISCO IOS-XE Kobol-R	Cisco cBR-8 (Kobol-R) Processor	cbrsup-universalk9.17.9.1y.SPA.bin	8G	64G	Supervisor

Table 3: Memory Recommendations for the Cisco cBR-8 Routers with Cisco IOS XE Cupertino 17.9.1x1

Feature Set	Cisco cBR-8 Route Processor	Software Image	Recommended Flash Memory	Recommended DRAM Memory	Runs From
CISCO IOS-XE universalk9	Cisco cBR-8 (CBR) Processor	cbrsup-universalk9.17.9.1x1.SPA.bin	8G	48G	Bootflash:
CISCO IOS-XE CLC K9	Cisco cBR-8 (CYLONS) Processor	cbrsup-universalk9.17.9.1x1.SPA.bin	8G	16G	Supervisor
CISCO IOS-XE Kobol-R	Cisco cBR-8 (Kobol-R) Processor	cbrsup-universalk9.17.9.1x1.SPA.bin	8G	64G	Supervisor

Table 4: Memory Recommendations for the Cisco cBR-8 Routers with Cisco IOS XE Cupertino 17.9.1w

Feature Set	Cisco cBR-8 Route Processor	Software Image	Recommended Flash Memory	Recommended DRAM Memory	Runs From
CISCO IOS-XE universalk9	Cisco cBR-8 (CBR) Processor	cbrsup-universalk9.17.9.1w.SPA.bin	8G	48G	Bootflash:
CISCO IOS-XE CLC K9	Cisco cBR-8 (CYLONS) Processor	cbrsup-universalk9.17.9.1w.SPA.bin	8G	16G	Supervisor
CISCO IOS-XE Kobol-R	Cisco cBR-8 (Kobol-R) Processor	cbrsup-universalk9.17.9.1w.SPA.bin	8G	64G	Supervisor

Supported Hardware

For detailed information about the hardware supported in Cisco IOS XE Cupertino 17.9 and its maintenance releases, see: [How and What to Order](#).

Cisco announced September 18, 2020, as the end-of-sale date for the Cisco cBR-8 Leoben1 based DOCSIS line cards (CBR-LC-*-16U30) and SUP60 (CBR-CCAP-SUP-60G).

For further information regarding end-of-sale and end-of-life announcements, see <https://www.cisco.com/c/en/us/products/video/cbr-series-converged-broadband-routers/eos-eol-notice-listing.html>.

Determining the Software Version for Cisco IOS XE Cupertino 17.9.1y1

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show ver EXEC** command:

```
Router# show ver
Load for five secs: 11%/1%; one minute: 11%; five minutes: 11%
Time source is NTP, 13:21:51.230 EST Tue Oct 25 2022
Cisco IOS XE Software, Version 17.09.01y1
Cisco IOS Software [Bengaluru], cBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version
17.9.1y1, RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2022 by Cisco Systems, Inc.
Compiled Mon 10-Oct-22 19:32 by mcpre
```

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ROM: 16.7(8r)s

```
video-LWR-G-I10 uptime is 1 day, 1 hour, 7 minutes
Uptime for this control processor is 4 hours, 2 minutes
System returned to ROM by SSO Switchover at 09:12:32 EST Tue Oct 25 2022
System restarted at 09:24:26 EST Tue Oct 25 2022
System image file is "harddisk:cbrsup-universalk9.17.09.01y1.SPA.bin"
Last reload reason: Force Failover
```

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Smart Licensing Status: UNREGISTERED/EVAL MODE

```
Cisco cBR-8 (CBR) processor (revision CBRVE) with 11293417K/6147K bytes of memory.
Processor board ID FXS2038Q3GW
64 Gigabit Ethernet interfaces
16 Ten Gigabit Ethernet interfaces
4 Hundred Gigabit Ethernet interfaces
32768K bytes of non-volatile configuration memory.
50331648K bytes of physical memory.
7649279K bytes of eUSB flash at bootflash:.
234365527K bytes of SATA hard disk at harddisk:.
```

Configuration register is 0x1820

Router#

Determining the Software Version for Cisco IOS XE Cupertino 17.9.1y

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
router#show version
Load for five secs: 54%/5%; one minute: 65%; five minutes: 66%
```

```
Time source is NTP, 22:52:28.192 PDT Tue Apr 25 2023
Cisco IOS XE Software, Version 17.09.01y
Cisco IOS Software [Cupertino], cBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version
17.9.1y, RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2023 by Cisco Systems, Inc.
Compiled Tue 25-Apr-23 15:49 by mcpre
```

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```
ROM: 16.7(8r)S
```

```
router uptime is 1 hour, 3 minutes
Uptime for this control processor is 1 hour, 10 minutes
System returned to ROM by reload at 21:37:36 PDT Tue Apr 25 2023
System restarted at 21:48:58 PDT Tue Apr 25 2023
System image file is "harddisk:cbrsup-universalk9.17.09.01y.SPA.bin"
Last reload reason: Reload Command
```

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```
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```

```
Cisco cBR-8 (CBR) processor (revision CBRVE) with 14445086K/6147K bytes of memory.
Processor board ID FXS2024Q7DJ
64 Gigabit Ethernet interfaces
16 Ten Gigabit Ethernet interfaces
4 Hundred Gigabit Ethernet interfaces
32768K bytes of non-volatile configuration memory.
50331648K bytes of physical memory.
7649279K bytes of eUSB flash at bootflash:.
234365527K bytes of SATA hard disk at harddisk:.
```

```
Configuration register is 0x2
```

```
router#
```

Determining the Software Version for Cisco IOS XE Cupertino 17.9.1x1

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
Router# show version
Load for five secs: 10%/1%; one minute: 11%; five minutes: 11%
Time source is NTP, 11:01:36.347 EST Tue Mar 1 2023
Cisco IOS XE Software, Version 17.09.01x
Cisco IOS Software [Cupertino], CBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version
17.9.1x1, RELEASE SOFTWARE (fc6)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2023 by Cisco Systems, Inc.
Compiled Mon 1-Mar-23 16:09 by mcpre
```

```
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software.
```

```
ROM: 16.7(8r)s
```

```
video-LWR-G-I9 uptime is 2 hours, 1 minute
Uptime for this control processor is 2 hours, 8 minutes
System returned to ROM by reload at 08:48:44 EST Tue Mar 1 2023
System restarted at 09:00:30 EST Tue Mar 1 2023
System image file is "harddisk:cbrsup-universalk9.17.09.01x.SPA.bin"
Last reload reason: Reload Command
```

```
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```

```
A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wvl/export/crypto/tool/stqrg.html
```

```
If you require further assistance please contact us by sending email to
export@cisco.com.
```

```
Smart Licensing Status: UNREGISTERED/EVAL MODE
```

```
Cisco cBR-8 (CBR) processor (revision CBR) with 11515589K/6147K bytes of memory.
Processor board ID FXS2038Q3G8
88 Gigabit Ethernet interfaces
```

```
32768K bytes of non-volatile configuration memory.  
50331648K bytes of physical memory.  
7743487K bytes of eUSB flash at bootflash:.  
97620256K bytes of SATA hard disk at harddisk:.
```

```
Configuration register is 0x1820
```

```
Router#
```

Determining the Software Version for Cisco IOS XE Cupertino 17.9.1w

To determine the version of the Cisco IOS XE software running on your Cisco cBR Series Converged Broadband Router, log in and enter the **show version EXEC** command:

```
Router#show ver  
Load for five secs: 63%/7%; one minute: 40%; five minutes: 43%  
Time source is NTP, 06:01:37.333 PDT Wed Oct 26 2022  
Cisco IOS XE Software, Version 17.09.01w  
Cisco IOS Software [Cupertino], cBR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version  
17.9.1w, RELEASE SOFTWARE (fc3)  
Technical Support: http://www.cisco.com/techsupport  
Copyright (c) 1986-2022 by Cisco Systems, Inc.  
Compiled Thu 20-Oct-22 19:21 by mcpre
```

```
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software.
```

```
ROM: 16.7(8r)S
```

```
CST_RPHY_LS uptime is 4 days, 1 hour, 2 minutes  
Uptime for this control processor is 3 days, 7 hours, 30 minutes  
System returned to ROM by SSO Switchover at 22:27:19 PDT Sat Oct 22 2022  
System restarted at 22:36:45 PDT Sat Oct 22 2022  
System image file is "harddisk:cbrrsup-universalk9.17.09.01w-FC3.SPA.bin"  
Last reload reason: redundancy force-switchover
```

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A summary of U.S. laws governing Cisco cryptographic products may be found at:
<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Smart Licensing Status: UNREGISTERED/EVAL MODE

Cisco cBR-8 (CBR) processor (revision CBRVE) with 14445324K/6147K bytes of memory.
 Processor board ID FXS2024Q7DJ
 64 Gigabit Ethernet interfaces
 16 Ten Gigabit Ethernet interfaces
 4 Hundred Gigabit Ethernet interfaces
 32768K bytes of non-volatile configuration memory.
 50331648K bytes of physical memory.
 7649279K bytes of eUSB flash at bootflash:.
 234365527K bytes of SATA hard disk at harddisk:.

Configuration register is 0x2

Router#

Determine Firmware Support

This section describes firmware that is supported for the Cisco cBR-8 Converged Broadband Routers.

For more information, see the [Install and Upgrade Guides](#).



Note If you want to upgrade to one of the Supervisor CPLD versions mentioned in the table, the chassis must have Cisco IOS XE Bengaluru 17.6.1a or later.

Table 5: Firmware Packages and Versions Supported in Cisco IOS XE Cupertino 17.9.1y1

Internal Name	Component Name	Required Minimum Version	Command
Supervisor CPLD	CBR-CCAP-SUP-160G CPLD	16052011 19071712 (optional)	show platform
	CBR-CCAP-SUP-250G CPLD	170724E0 190717E1 (optional)	show platform
Supervisor ROMMON	CBR-CCAP-SUP-160G ROMMON and CBR-CCAP-SUP-250G ROMMON	16.7(8r)s	show platform
Line Card CPLD	CBR-CCAP-LC-40G CPLD	00000026	show platform diag
DOCSIS 3.1 downstream module Micro	CBR-CCAP-LC-40G Gemini2 Micro	3.1A	show platform diag

Internal Name	Component Name	Required Minimum Version	Command
DOCSIS 3.1 downstream module FPGA	CBR-CCAP-LC-40G Gemini2 Apollo	4.484F	show platform diag
DPIC Uboot and FPGA	CBR-DPIC-8X10G Firmware	00010001	show platform diag
DPIC 100G Uboot and FPGA	CBR-DPIC-2X100G Firmware	00020006	show platform diag
RF-PROT-PIC Firmware	CBR-RF-PROT-PIC Firmware	00000721	show platform diag

Table 6: Firmware Packages and Versions Supported in Cisco IOS XE Cupertino 17.9.1y

Internal Name	Component Name	Required Minimum Version	Command
Supervisor CPLD	CBR-CCAP-SUP-160G CPLD	16052011 19071712 (optional)	show platform
	CBR-CCAP-SUP-250G CPLD	170724E0 190717E1 (optional)	show platform
Supervisor ROMMON	CBR-CCAP-SUP-160G ROMMON and CBR-CCAP-SUP-250G ROMMON	16.7(8r)s	show platform
Line Card CPLD	CBR-CCAP-LC-40G CPLD	00000026	show platform diag
DOCSIS 3.1 downstream module Micro	CBR-CCAP-LC-40G Gemini2 Micro	3.1A	show platform diag
DOCSIS 3.1 downstream module FPGA	CBR-CCAP-LC-40G Gemini2 Apollo	4.484F	show platform diag
DPIC Uboot and FPGA	CBR-DPIC-8X10G Firmware	00010001	show platform diag
DPIC 100G Uboot and FPGA	CBR-DPIC-2X100G Firmware	00020006	show platform diag
RF-PROT-PIC Firmware	CBR-RF-PROT-PIC Firmware	00000721	show platform diag

Table 7: Firmware Packages and Versions Supported in Cisco IOS XE Cupertino 17.9.1x1

Internal Name	Component Name	Required Minimum Version	Command
Supervisor CPLD	CBR-CCAP-SUP-160G CPLD	16052011 19071712 (optional)	show platform
	CBR-CCAP-SUP-250G CPLD	170724E0 190717E1 (optional)	show platform
Supervisor ROMMON	CBR-CCAP-SUP-160G ROMMON and CBR-CCAP-SUP-250G ROMMON	16.7(8r)s	show platform
Line Card CPLD	CBR-CCAP-LC-40G CPLD	00000026	show platform diag
DOCSIS 3.1 downstream module Micro	CBR-CCAP-LC-40G Gemini2 Micro	3.1A	show platform diag
DOCSIS 3.1 downstream module FPGA	CBR-CCAP-LC-40G Gemini2 Apollo	4.484F	show platform diag
DPIC Uboot and FPGA	CBR-DPIC-8X10G Firmware	00010001	show platform diag
DPIC 100G Uboot and FPGA	CBR-DPIC-2X100G Firmware	00020006	show platform diag
RF-PROT-PIC Firmware	CBR-RF-PROT-PIC Firmware	00000721	show platform diag

Table 8: Firmware Packages and Versions Supported in Cisco IOS XE Cupertino 17.9.1w

Internal Name	Component Name	Required Minimum Version	Command
Supervisor CPLD	CBR-CCAP-SUP-160G CPLD	16052011 19071712 (optional)	show platform
	CBR-CCAP-SUP-250G CPLD	170724E0 190717E1 (optional)	show platform
Supervisor ROMMON	CBR-CCAP-SUP-160G ROMMON and CBR-CCAP-SUP-250G ROMMON	16.7(8r)s	show platform
Line Card CPLD	CBR-CCAP-LC-40G CPLD	00000026	show platform diag

Internal Name	Component Name	Required Minimum Version	Command
DOCSIS 3.1 downstream module Micro	CBR-CCAP-LC-40G Gemini2 Micro	3.1A	show platform diag
DOCSIS 3.1 downstream module FPGA	CBR-CCAP-LC-40G Gemini2 Apollo	4.484F	show platform diag
DPIC Uboot and FPGA	CBR-DPIC-8X10G Firmware	00010001	show platform diag
DPIC 100G Uboot and FPGA	CBR-DPIC-2X100G Firmware	00020006	show platform diag
RF-PROT-PIC Firmware	CBR-RF-PROT-PIC Firmware	00000721	show platform diag

Upgrade Cisco cBR-8 to the minimum supported firmware revisions for the Cisco IOS XE Cupertino 17.9.1

